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We claim

1. Method of treating a human subject to prevent leakage of serum proteins from capillary endothelial junctions during a period of increased capillary permeability which comprises administering to a subject in need of such treatment an effective amount of a composition comprising at least one polysaccharide selected from the group consisting of hydroxyethyl starch and dextran and at least one antioxidant selected from the group consisting of superoxide dismutase, glutathione peroxidase, catalase, hydroxyethyl rutoside, cyclic adenosine monophosphate and vitamin C, in admixture with a pharmaceutically acceptable liquid carrier.

2. Method according to claim 1 wherein said polysaccharide is hydroxyethyl starch.

3. Method according to claim 1 wherein said polysaccharide is dextran.

4. Method according to claim 1 wherein said polysaccharide is hydroxyethyl starch and dextran.

5. Method according to claim 1 wherein said antioxidant is superoxide dismutase.

6. Method according to claim 1 wherein said antioxidant is catalase.

7. Method according to claim 1 wherein said antioxidant is glutathione peroxidase.

8. Method according to claim 1 wherein said antioxidant is vitamin C.

9. Method according to claim 1 wherein said antioxidant is vitamin C and glutathione peroxidase.

10. Method according to claim 1/ wherein said liquid carrier is a member selected from the group consisting of 0.9% saline, 5% dextrose and Ringer's lactate.

11. Method according to claim 1/ wherein said polysaccharide is present in said composition in amount of about 3 to about 50%.

12. Method according to claim 1/wherein said polysaccharide is present in said composition in amount of about 6 to about 12%.

13. Method according to claim 1 wherein said composition is administered by intravenous injection in an amount of about 500 to 1500 ml per treatment.

14. Method according to claim 5 wherein said superoxide dismutase is administered in amount of about 5000 to about 20,000 IU/kg per treatment.

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15. Method according to claim 6 wherein said catalase is administered in an amount of about 5000 to about 12,500 IU/kg per treatment.

16. Method according to claim 1 wherein said antioxidant is hydroxyethyl rutoside and is administered in an amount of about 500 to about 2000 mg/kg per treatment.

17. Method according to claim 1 wherein said antioxidant is cyclic AMP and is administered in an amount of about 5 to about 20 milimols/ml per treatment.

18. Method according to claim 8 wherein said antioxidant is vitamin C and is administered in amount of about 250 to about 2,500 mg/ml per treatment.

19. Method of treating a human subject to prevent leakage of serum proteins from capillary endothelial junctions during a period of increased capillary permeability and simultaneously preventing the harmful effects of free radicals on cellular membranes and other organelles which comprises intravenously administering to a subject in need of such treatment an effective amount of a composition comprising:

a) at least one polysaccharide consisting of hydroxyethyl starch and dextran and

b) at least one antioxidant selected from the group consisting

of superoxide dismutase, glutathione peroxidase, catalase, hydroxyethyl rutoside, cyclic adenosine monophosphate and vitamin C,

in admixture with a pharmaceutically acceptable liquid carrier selected from the group consisting of 0.9% saline, 5% dextrose and Ringer's lactate and wherein said polysaccharide is present in an amount of about 6 to about 12%.

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20. A composition for treating a human subject to prevent leakage of serum proteins from capillary endothelial junctions during a period of increased permeability which comprises at least one polysaccharide selected from the group consisting of hydroxyethyl starch and dextran and at least one antioxidant selected from the group consisting of superoxide dismutase, glutathione peroxidase, catalase, hydroxyethyl rutoside, cyclic adenosine monophosphate and vitamin C, in admixture with a pharmaceutically acceptable carrier.